

Title (en)  
ULTRASOUND SUCTION SYSTEM

Title (de)  
ULTRASCHALLSAUGVORRICHTUNG

Title (fr)  
SYSTÈME D'ASPIRATION D'ULTRASON

Publication  
**EP 2508143 A1 20121010 (EN)**

Application  
**EP 11795697 A 20110613**

Priority  
• US 35564610 P 20100617  
• JP 2011063511 W 20110613

Abstract (en)  
An ultrasound suction system applies an ultrasound driving signal generated by an ultrasound driving signal generating section onto an ultrasound generating section, transmits ultrasound vibration energy to a distal end portion via a vibration transmitting section, and, under observation by an observing section, fragments a treatment target living tissue with the ultrasound vibration energy, sucks fragmented living tissue pieces together with fluid supplied to a surface of the living tissue, and acquires by an image acquiring section an observed image in a state in which the ultrasound vibration energy is given. A control section controls output of the ultrasound driving signal on the basis of a result of comparison with a reference image.

IPC 8 full level  
**A61N 7/00** (2006.01); **A61B 17/00** (2006.01); **A61B 17/32** (2006.01); **A61B 19/00** (2006.01)

CPC (source: EP US)  
**A61B 17/320068** (2013.01 - EP US); **A61B 90/36** (2016.02 - EP US); **A61B 90/361** (2016.02 - EP US); **A61B 2017/00022** (2013.01 - EP US); **A61B 2017/00057** (2013.01 - EP US); **A61B 2017/00137** (2013.01 - EP US); **A61B 2017/00902** (2013.01 - EP US); **A61B 2017/320069** (2017.07 - EP US); **A61B 2017/32007** (2017.07 - EP US); **A61B 2090/364** (2016.02 - EP US); **A61B 2218/002** (2013.01 - EP US); **A61B 2218/007** (2013.01 - EP US)

Cited by  
CN109946132A; WO2015038347A1; WO2022031417A1; US10117702B2; US10179022B2; USD847990S; US10398466B2; US10426507B2; US9848937B2; US10201382B2; US10265117B2; US10357303B2; US10441308B2; US10702329B2; US10842522B2; US10111699B2; US10117667B2; US10245064B2; US10524854B2; US9949788B2; US10194976B2; US10299810B2; US10335182B2; US10524872B2; US9610091B2; US10154852B2; US10463421B2; US10639092B2; US10881449B2; US9737358B2; US9795436B2; US10420579B2; US10485607B2; US10575892B2; US10595930B2; US10959806B2; US10314638B2; US10376305B2; US10524852B1; US10555769B2; US11266430B2; US9700333B2; US9808308B2; US10166060B2; US10285724B2; US10335183B2; US10441345B2; US10172669B2; US10245065B2; US10265094B2; US10342602B2; US10433866B2; US10433865B2; US10463887B2; US10888347B2; US9814514B2; US10194972B2; US10537352B2; US10751117B2; US10893883B2; US10092348B2; US10251664B2; US10299821B2; US10321950B2; US10537351B2; US9757186B2; US9872725B2; US10335614B2; US10456193B2; US11058447B2; US9707030B2; US10092310B2; US10130410B2; US10194973B2; US10595929B2; US10610286B2; US10624691B2; US10646269B2; US10687884B2; US11033322B2; US9737355B2; US9861428B2; US10226273B2; US10349999B2; US10441310B2; US10517627B2; US10543008B2; US9877776B2; US9913680B2; US10159524B2; US10278721B2; US10285723B2; US10420580B2; US10433900B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2012116222 A1 20120510**; CN 102762160 A 20121031; CN 102762160 B 20150304; EP 2508143 A1 20121010; EP 2508143 A4 20130109; EP 2508143 B1 20140226; JP 5006475 B2 20120822; JP WO2011158792 A1 20130819; WO 2011158792 A1 20111122

DOCDB simple family (application)  
**US 201113286522 A 20111101**; CN 201180009159 A 20110613; EP 11795697 A 20110613; JP 2011063511 W 20110613; JP 2011546358 A 20110613